

March 13, 1969

Dr. R. N. Mukherjee
Unit of Radiation Biology
Division of Life Sciences, IAEA
Vienna 1, Kaerntnerring
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Dear Dr. Mukherjee:

Dr. A. H. Sparrow has mentioned that you are trying to coordinate and collect information on radio-resistant organisms in "liquids used for shielding nuclear reactors".

I have no useful information to offer you, but would appreciate your letting me know of any papers that may have been published on this question. In 1957 I visited the reactor at Trombay and was quite astonished to see the density of blue-green algal growth in the swimming-pool reactor. Subsequently, I believe I saw a note on the question in Nature, but have not been able to retrieve the reference.

My immediate interest in the question has to do with possible sources of radiation-resistant bacteria, and we have already found some interesting organisms, different from *Micrococcus radiodurans*, at the Brookhaven site, which we are exploring further for genetic investigations. If you can let me have a list of published reference on organisms in reactor pools, as well as any other information that you might have for my immediate research interest, I would be most grateful to you. The particular direction of my interest is to investigate possibly diverse mechanisms of repair of radiation-damaged DNA in bacteria.

Sincerely yours,

Joshua Lederberg
Professor of Genetics